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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/575,125

04/07/2006

Andreas Neyer

NEYER ET AL-1 PCT

9253

25889

7590

10/17/2008

COLLARD & ROE, P.C.

1077 NORTHERN BOULEVARD

ROSLYN, NY 11576

EXAMINER

PETKOVSEK, DANIEL

ART UNIT

PAPER NUMBER

2874

MAIL DATE

DELIVERY MODE

10/17/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/575,125

**Applicant(s)**

NEYER ET AL.

**Examiner**

DANIEL PETKOVSEK

**Art Unit**

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on amendment filed June 26, 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-28 is/are allowed.
- 6) ☒ Claim(s) 29-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/003)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This office action is in response to the amendment filed June 26, 2008. In accordance with the amendment, claims 1-33 have been amended.

Claims 1-33 are pending.

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 29-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaneko et al. U.S.P. No. 6,088,492.

Kaneko et al. U.S.P. No. 6,088,492 teaches (ABS, Fig. 3, column 15, line 49 through column 16, line 26) an electro-optical printed circuit board that meets each structural claim limitation according to the method limitations of claim 1. Kaneko et al. '492 teaches a electro-optic printed circuit board that has a number of layers of electrically conductive elements, and at least one optical layer with optically conductive elements, the optical layer having a polysiloxane material and the optical elements being channel waveguides, and the optical and electrical layers being connected, which clearly, fully meets the claimed structure of Product-by-process claim 29. Regarding claims 30-33, each structural element (or use thereof) is disclosed by Kaneko et al. '492.

Regarding claims 29-33, even though these claims are dependent upon an allowable method claim (sole independent claim 1), these claims are fully anticipated by the Kaneko et al. '492 reference. "Even though product-by-process claims are limited by and defined by the process, determination of **patentability is based on the product itself**. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art (see Kaneko '492 PCB), *the claim is unpatentable even though the prior product was made by a different process.*" In re Thorpe, 777 F.2d 695, 698, (Fed. Cir.1985).

***Allowable Subject Matter***

3. Claims 1-28 are allowed. The following is an examiner's statement of reasons for allowance: the closest prior art of record (Kaneko et al. U.S.P. No. 6,088,492; Kopetz et al. NPL; Ouchi US 2003/0179979 A1; and De Dobbelaere et al. U.S.P. No. 5,764,820) does not teach or reasonably suggest, *in combination*, the specific method for forming an electro-optic printed circuit board as claimed. In particular, there is no teaching or reasonable suggestion from the prior art of record to create the PCB with electrically conductive elements in which *polysiloxane* material is used for the optical layer as a *channel* waveguide(s), while further a *casting mold is used as a negative mold*, in which a mechanical connection between the optical waveguide layer and the at least one layer of electrically conductive PCB layers is produced in *direct* connection with the production of the optical waveguide layer (sole independent method claim 1, claims 2-28 dependent therefrom).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Response to Arguments***

4. Applicant's arguments filed June 26, 2008 regarding the rejections of claims 29-33 have been fully considered but they are not persuasive. Claims 29-33 are product by process claims, and the **claimed structure** is fully anticipated by the Kaneko et al. '492 reference. These rejections are fully addressed in the 35 U.S.C. 102(b) rejections of claims 29-33 to Kaneko et al. '492 above.
5. Applicant's arguments, see amendment with remarks, filed June 26, 2008, with respect to the *method* for production of an electro-optical PCB have been fully considered and are persuasive. The rejections of Kopetz et al. NPL to claims 1-33 have been withdrawn; and also the rejections of claims 1-28 to Kaneko et al. U.S.P. No. 6,088,492 and further in view of Ouchi US 2003/0179979 A1 and De Dobbelaere et al. U.S.P. No. 5,764,820 have been withdrawn.

***Inventorship***

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor

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and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **DANIEL PETKOVSEK** whose telephone number is (571)272-4174. The examiner can normally be reached on M-F 8:30-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Uyen Chau Le can be reached on (571) 272-2397. The

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fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daniel Petkovsek/  
Patent Examiner, Art Unit 2874  
October 10, 2008

/Sung H. Pak/  
Primary Examiner, Art Unit 2874